Submission to the House Committee on Agriculture's Subcommittee on Conservation, Credit, Rural Development and Research on the Critical Use Exemption Process for Methyl Bromide

March 10, 2005

Submitted by
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The California Strawberry Commission was established under California law and represents approximately 600 growers, shippers and processors of strawberries in California. California produces 88 percent of the nation's strawberry fruit (approximately 1.6 billion pounds) with a farm-gate value of $1.2 billion.

The Commission recognizes that most of its members will need access to methyl bromide until suitable alternatives are found. Much of the California strawberry industry is dependent on the use of a pre-plant soil fumigant to produce its crop. To address this need, we have been a leader in research funding for the development of alternative fumigants and have invested over $8 million of member funds in alternative research since 1992. **As a result of this research, 35 percent of our industry's acreage was treated with alternative fumigants in 2004** and growers continue to make this transition. However, there are serious regulatory, technical and economic challenges that prevent a larger number of California's strawberry growers from using currently available alternatives. It is for these growers that we continue to fund research into alternatives and pursue the continued long-term availability of methyl bromide.

Current regulations in California force most growers to broadcast apply methyl bromide, a method in which the entire field is treated instead of solely the planting bed. However,

for growers who have transitioned to alternative fumigants, a majority apply them by drip fumigation, a process where only the bed is treated. This practice significantly reduces the cost of the treatment and helps to offset the increased weeding costs and reduced yields associated with using alternatives. However, **for many California strawberry growers, there are numerous challenges restricting their transition to alternative fumigants.** These challenges include: 1) township caps that restrict the use of Telone (a component in a preferred alternative), 2) field topography and 3) a significant increase in production costs in the northern production region when using drip fumigation.

1) Telone township caps. The availability of 1,3-D in California is handled by a Telone management plan. This is an agreement between California Department of Pesticide Regulation (Cal DPR) and Dow Agro-Sciences where the annual use of 1,3-D is limited to 90,250 lbs (1X) per year, per township (a township contains 36 square miles). There is a cap for Telone because 1,3-D is on California's Proposition 65 list of chemicals that may cause cancer. To protect public health, Cal DPR is managing the use of 1,3-D to ensure that cumulative lifetime exposure of the chemical remains below a certain level. This level is typically expressed as an average daily dose spread over a 70-year (lifetime) exposure period. 1,3-D's use in California was banned for several years, and then restricted to 90,250 lbs per township per year. Since 2002, Cal DPR has allowed an increased allocation up to 180,500 lbs. (2X) and on a case by case basis up to 2.8X. Use above the 1X annual township cap draws upon a "bank" of 1,3-D allocation that was available but not used in previous years (the bank accumulation started in 1995).

In 2004, The 2X cap was reached in four townships where strawberry fruit growers have transitioned to alternative fumigants. In one of these townships, growers were forced to use other fumigants on more than 500 acres despite having 2.8X the cap of Telone available. In 2005, between 50 and 80 percent of the strawberry acreage in two California townships will not be able to use their total amount of allocated Telone due to the township cap. As more growers transition to alternative fumigants, the township cap regulations will increasingly prevent growers in most of the production areas from

fumigating with Telone. **According to a study by Dr. Tom Trout, USDA-ARS, Fresno, California, strawberry production will face the largest impact from the Telone township cap, estimating that between 25 – 50 percent of the state's acreage will be affected by the cap.**

2) Field topography. Approximately 15 percent of California's strawberry fields are located on hillsides with slopes severe enough to make effective application of fumigants by drip irrigation difficult or impossible. In their transition to alternatives, hillside growers will need to broadcast apply alternative fumigants like Telone/chloropicrin or straight chloropicrin. This option is somewhat attractive because it fits into the current production practice of broadcast applying methyl bromide. However, neither alternative option provides sufficient savings on fumigation costs to offset increased weeding costs and reduced productivity. Costs are not the only hindrance growers face when their crews hand-weed in California. Because hand-weeding is such a contentious issue in the state, growers must be prepared to prove, upon state government request, their need to hand-weed.

Furthermore, County Agricultural Commissioners do not currently allow growers to broadcast fumigate with straight chloropicrin in Monterey and Santa Cruz Counties (two counties that contain 38 percent of the state's acreage) due to concerns that this would result in increased public complaints (most fumigation complaints are associated with chloropicrin). **For broadcast applications of Telone, a main concern is the Telone township cap.** However, broadcast applications use 30- 40 percent more fumigant than when applied by drip.

3) **Increased production costs in the northern production region.** For the northern strawberry production region, applying fumigants by drip results in significant increases in the cost of growing strawberry fruit. With drip applied fumigants, the entire field and irrigation system must be set up before the field can be fumigated. This process requires an additional three to four weeks compared to the setup process for broadcast fumigation. This additional time causes problems for a majority of the producers in the northern

district. The strawberry production season is adjacent to the planting season of many vegetable crops, so strawberry production fields are typically rotated with these crops (i.e. half the ranch is planted in strawberries and the other half is rotated out with vegetables each year). A typical production cycle for a field is strawberry (September 2004 – November 2005) followed by two vegetable crops (November 2005 – September 2006), then back to strawberry (September 2006 – November 2007). The need for an additional 3-4 weeks to prepare a field for drip fumigation forces strawberry growers to take back the land from the rotation vegetable growers 3-4 weeks earlier. Normally, two vegetable crops can be produced between the strawberry rotations. However, by shortening the season 3-4 weeks early, only one vegetable crop can be produced instead of two. Land sublease rates to vegetable growers are approximately $1,000 for one crop and $1,800 for two (the land typically leases for $2,200 for a full year). Therefore, **strawberry growers who switch to drip applied alternative fumigants lose $800 in rent due to the loss of one of the two vegetable crops.**

A second issue with the transition to drip applied fumigants in the north is the need to setup the entire irrigation system before fumigation. Currently, growers move most of their irrigation headers and other main line pipes over from the previous season's crop to the new crop after the end of the season (in November/December/January). However, **with drip applied fumigants growers must have two sets of equipment, at an increased cost of approximately $500/acre.**

The strawberry grower's need for methyl bromide can be fulfilled, in the short term, through the Critical Use Exemption (CUE) process if it is allowed to function as it was designed. The United States Environmental Protection Agency (EPA) has done an excellent job of understanding our industry's continuing need for methyl bromide and the difficulties faced in the transition to alternatives. Throughout the Montreal Protocol process, the EPA submitted Critical Use Nominations (CUN's) to provide the industry with sufficient methyl bromide in the future so that strawberry growers can meet their critical needs. The EPA has also created reasonable regulations for the allocation of this critical use methyl bromide in 2005.

There are aspects of the CUE process that need to be changed to allow continued availability of methyl bromide while our industry develops more suitable alternatives.

First, The EPA understands how difficult it is to shift basic research to applied principles, and that we need time to mitigate these hurdles. EPA dedicates considerable resources to evaluating industry recommendations prior to issuing its nomination to the Methyl Bromide Technical Options Committee (MBTOC). **EPA's nomination should prevail over MBTOC's without further reduction by MBTOC.**

Second, we ask the U.S. delegation and the Parties of the Montreal Protocol (Parties) to shift their focus from reducing the use of methyl bromide and other ozone depleting substances to managing the emissions of these substances and allowing for multi-year CUE's. By changing the focus of the CUE process from reducing the amount of methyl bromide used to managing emissions released, the strawberry industry could retain limited access to methyl bromide in the future. The EPA has recognized that this would be possible with the development of new technologies and innovative production practices that minimize emissions. Unfortunately, the current CUE process does not reward an industry for innovations that reduce emissions. Any process that growers might use to reduce the amount of methyl bromide needed to fumigate a field leads to a direct reduction in the amount that will be approved by MBTOC and the Parties in future CUE's. Additionally, unless the process is changed to focus on emission reduction, funding research into methods that may reduce emissions will be difficult. **Emission management is the key to protecting the ozone layer. Continued access to and use of methyl bromide in the future is not incompatible with reduced emissions.**

Halon 1211, a product that has had its production phased out by the Montreal Protocol, provides an example for emissions management. There are significant stockpiles of Halon 1211 that are gradually being emitted into the atmosphere because there are no incentives in place to destroy the product. By allowing methyl bromide users to buy and destroy stocks of Halon 1211 in exchange for the continued use of methyl bromide, overall emissions of ozone-depleting compounds could be reduced. Such a "swap"

would provide the members of our industry the opportunity to continue using methyl bromide while reducing damage to the ozone layer. **To move the focus to emissions, the U.S. delegation should ask the Parties to develop a plan for the use of a Halon swap to facilitate the continued use of methyl bromide in the future.**

Third, the need to annually submit applications to the EPA and attend multiple Montreal Protocol meetings to explain and defend the industry's CUN presents yet another economic and technical burden for the California strawberry industry. We are asked to submit an application for critical use two years in the future, long before we know what our CUE approved amount is in the subsequent year. **A multi-year critical use process would enable growers to better plan their transition to alternatives rather than being forced to wait for annual updates on the availability of methyl bromide.** The phase-out process is hindered by uncertainty. It encourages growers to continue using as much methyl bromide as allowed since availability for future fumigation seasons is not certain. It is a matter of use it or lose it. **We ask that the U.S. delegation support a multi-year CUE process that will enable the California strawberry industry's growers to efficiently plan their future use of fumigants.**

Fourth, the US delegation needs to continue to create a more open CUN review process where organizations like the Commission can directly address questions about their CUN with MBTOC during the review process. While the Commission has been able to meet with representatives of MBTOC on several occasions to discuss our CUN, these meetings were infrequent and always followed MBTOC's preliminary determination on the CUN. **Additional meetings with MBTOC and TEAP should be arranged during MBTOC's review of the CUN's to allow updated information to be shared with the Committee and allow the Commission to answer questions about our CUN before MBTOC makes any recommendations.**

It has only been through active participation in the CUE process, including attendance at overseas meetings, that the strawberry industry has found any success in achieving a positive outcome as it relates to the continued use of methyl bromide. Four fundamental changes in the CUE process, including requiring that EPA's nomination be accepted by MBTOC as received, shifting from methyl bromide usage to emissions management, taking a multi-year approach to the CUN process, and creating a more transparent CUN review process, would allow more rapid introduction of alternatives, reduce industry uncertainty, and remove the instance of further cumbersome burdens such as those experienced by the California strawberry industry in recent years.